

Merritt Parkway, Metro North Railroad Bridge
(New York, New Haven, and Hartford Railroad Bridge)
Spanning the Merritt Parkway at the 13.4 mile mark
New Canaan
Fairfield County
Connecticut

HAER No. CT-83

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
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HISTORIC AMERICAN ENGINEERING RECORD

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HAER No. CT-83

Location: Spanning the Merritt Parkway at the 13.4 mile mark in New Canaan, Fairfield County, Connecticut

UTM: 18.626060.4552620
Quad: Norwalk South, Connecticut

Construction Date: 1937

Engineer: Connecticut Highway Department

Architect: George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect for all Merritt Parkway bridges.

Contractor: Paul Bacco Construction Company
Stamford, Connecticut

Present Owner: Connecticut Department of Transportation
Wethersfield, Connecticut

Present Use: Used by rail traffic on the Metro North Railroad to cross the Merritt Parkway

Significance: The bridges of the Merritt Parkway were predominately inspired by the Art Deco and Art Moderne architectural styles of the 1930s. Experimental forming techniques were employed to create the ornamental characteristics of the bridges. This, combined with the philosophy of incorporating architecture into bridge design and the individuality of each structure, makes them distinctive.

Historians: Todd Thibodeau, HABS/HAER Historian
Corinne Smith, HAER Engineer
August 1992

For more detailed information on the Merritt Parkway, refer to the Merritt Parkway History Report, HAER No. CT-63.

LOCAL HISTORY

In 1684, John Finch of Stamford received the first grant of land in present-day New Canaan. Few others followed immediately. In 1700, Samuel Smith, Thomas Benedict and Thomas Seymour, each received a forty-four acres of land on Canoe Hill from the town of Norwalk. This area steadily expanded over the next thirty years. In 1731, Connecticut's General Assembly established Canaan Parish out of parts of northwestern Norwalk and northeastern Stamford. The region's civil status was unchanged, but residents were allowed to form their own church.¹

For the next fifty years the Canaan Parish steadily developed into a farming region, but after the Revolutionary War when agricultural prices fell, local farmers were forced to search for an alternative economy. This resulted in the dramatic expansion of the shoe-making industry. As this trade developed, residents viewed civic control by Norwalk and Stamford as a hinderance. In 1796, community leaders petitioned the General Assembly for independent status. The town of New Canaan was created in 1801; renamed because Canaan, CT had been incorporated in 1739.²

As New Canaan continued to develop around the expanding shoe industry, a center village formed with six distinct districts on the periphery: Oenoke Ridge, Ponus Ridge, Silvermine, Smith Ridge, Talmadge Hill, and West Road.

¹"Important Dates in the History of New Canaan," (Pamphlet, New Canaan Historical Society, 1976).

²Mary Louise King, The Making of Main Street, (New Canaan: New Canaan Historical Society, 1971), 5-7.

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The building of the railroad in 1868 failed to bring new enterprises but the economy was enriched by the coming of the summer boarder, once again giving employment to whole families. Concurrently a new business grew, the buying and selling of real estate. Old farm-houses were remodeled and new mansions built for summer sojourners, many of whom became year-round residents, commuting to New York and nearby cities to work.³

Because of its central location, Warren Creamer, the Merritt Highway project engineer of surveys and property acquisition, opened his main field office in New Canaan in 1931. Most local residents favored the Merritt Parkway going through New Canaan, but conflict arose over where the roadway would be located. Originally it was to take a northern route, but the town of Wilton objected to having the parkway, forcing the Merritt to go through the southern districts of Ponus Ridge, Talmadge Hill, and Silvermine. Most property was quickly acquired. However, Lewis B. Lapham, one of New Canaan's wealthiest citizens, refused to part with a 150-acre tract. Lapham died in 1934, upon which his heirs too refused to sell the property unless an old oak on the land was spared. When the roadway was built, it had to make a slight bend to avoid the "Lapham Oak."

Robert Hurley, commissioner of public works, condemned the road as being unsafely close to the tree, and he was probably right. The first fatality on the Merritt happened on August 7, 1939, when a Brooklyn man fell asleep at the wheel and hit the tree. The old oak was subsequently removed in February 1940.⁴ Controversy also arose over draining Raymond's pond, a local

³"Important Dates in the History of New Canaan."

⁴"Highway Surveyors Have Gone Through Talmadge Hill District," New Canaan Advertiser, 2 March 1932, p. 1.

"Lewis B. Lapham Doesn't Want to Sell to State," New Canaan Advertiser, 23 November 1933, p. 2.

"150 Acres Transferred to State, Lapham Only One Left," New Canaan Advertiser, 27 December 1934, p. 1.

"Lapham Estate Finally Bought, Last Link Needed," New Canaan Advertiser, 25 June 1936, p. 1.

"Brooklyn Man Dies in Crash On Merritt Parkway When Car Hits Famous Oak Tree," New Canaan Advertiser, 10 August 1939, p. 1.

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recreational spot, for the roadbed, but unlike the Lapham Oak, sentiment did not prevail to save the pond.⁵ Despite initial problems, the parkway would ultimately help to make New Canaan a prosperous residential community.

BRIDGE CONSTRUCTION HISTORY

Extending from New York to New Haven, the Metro North Railroad is the primary commuter rail serving Fairfield County. This bridge was built for a branch-line extending from Stamford to New Canaan. The Paul Bacco Construction Company of Stamford, CT, received the contract to grade the Merritt Parkway from Ponus Ridge Road to South Avenue/Route 124, in New Canaan (ConnDot project #180-46). The contract for the grade separation and Metro North Railroad Bridge also went to the Paul Bacco Construction Company (ConnDot project #180-53).⁶ The bridge cost \$27,056 and was completed in 1937. The paving work for this region of the Merritt extended from Wire Mill Road, in Stamford, to Lapham Avenue, in New Canaan. This contract was awarded to the New Haven Construction Company of New Haven, CT (ConnDot project# 180-93). The Metro North Railroad Bridge has received little maintenance since it was built.⁷

"Famous Oak Tree Removed Saturday," New Canaan Advertiser, 1 February 1940, p. 1.

⁵"Merritt will Drain Raymond's Pond," New Canaan Advertiser, 3 September 1936, p. 1.

⁶Contract Card File, Map File and Engineering Records Department, Connecticut Department of Transportation, Wethersfield, CT.

⁷Metro North Railroad Bridge, DOT #710; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation, Newington, CT.

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BRIDGE DESCRIPTION

The Metro North Railroad Bridge is a double-span, reinforced-concrete, barrel-type rigid-frame bridge. Two lanes of the Merritt Parkway travel under each 32' wide span at a skew of 6°-29'. The 16'-wide bridge provides for one railroad track. Parallel reinforced-concrete wing walls of varying length form the approach for the underpass. Adjacent walls are braced by cross walls spanning between the wing walls. The space between the wing walls is earth filled, and the train tracks run on the ballast on top of the fill.

The rigid-frame design allows the engineer to decrease the structural material at the center of the span, thus forming an arched opening. (See the Merritt Parkway History Report, HAER No. CT-63, for a more detailed description of the rigid-frame.) The intrados of the span rises 3' from the springline to the crown, while the extrados rises at a 1.1 percent grade from the outer knees to the center pier. The frame thickness at the crown is 24". The outer frame leg thickness increases from 2'-6" at the base to 5' at the knee. The exposed face of the legs remains vertical, and the hidden face slopes away from the roadway. The two arches share a center pier with a constant thickness of 3'. The minimum clearance provided is more than 14'-2" at a distance 10' perpendicular from the centerline of the roadway.

The facade of the bridge is characterized by receding planes in the pylons and the wing walls. At the pylons, three vertical fingers recede toward the top of the pylon and form an 'M'. At the ends of the wing walls, two fingers recede to form an upside down 'U'. The solid parapet has a wide coping on top of a dogtooth course formed in the concrete. Presently, the decorative concrete of the railing is spalling.

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PROJECT INFORMATION

This recording project was undertaken by the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, Chief. The Merritt Parkway recording project was sponsored and funded by the Connecticut Department of Transportation (ConnDot) and the Federal Highway Administration.

The fieldwork, measured drawings, historical reports and photographs were prepared under the general direction of Eric N. DeLony, HAER Chief, and Sara Amy Leach, HABS Historian.

The recording team consisted of Jacqueline A. Salame (Columbia University), architect and field supervisor; Mary Elizabeth Clark (Pratt Institute) and B. Devon Perkins (Yale University), architectural technicians; Joanne McAllister-Hewlings (US/ICOMOS-Great Britain, University of Sheffield), landscape architect; Corinne Smith (Cornell University), engineer; Gabrielle M. Esperdy (City University of New York) and Todd Thibodeau (Arizona State University), historians; and Jet Lowe, HAER photographer.